Binghamton, NY Chesapeake Bay TMDL Public Meeting Summary

December 1, 2009

Broome County Public Library
185 Court Street
Binghamton, NY 13901

Agenda

- Welcome, introductions, and meeting logistics – Peter Freehafer, NYSDEC (5 minutes)
- EPA presentation on the Chesapeake Bay TMDL and EPA expectations – Katherine Antos and Bob Koroncai, EPA (45 minutes)
- Next Steps – Ron Entringer, NYSDEC (20 minutes)
- Presentations from Local Government & Watershed Groups
    - Carol Sweeney, Town of Owego (10 minutes)
    - Jim Curatolo, Upper Susquehanna Coalition (10 minutes)
- Public comments, questions and answers – Panel moderated by Peter Freehafer (60 minutes)
- Adjourn

Attendee Detail

Webinar Register: **41**

Webinar Attended: **30**

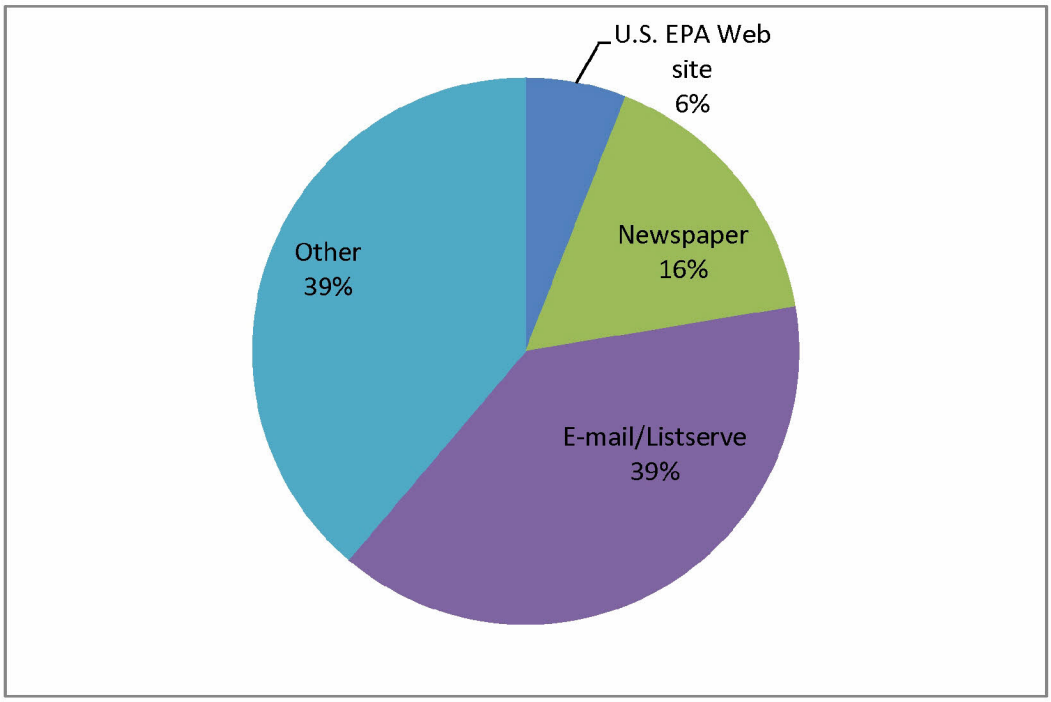
On-Site: **81**

Total Live Attendees: 111

Registration Question:

How did you hear about this Meeting?

- U. S. EPA Web Site (4)
- Other Web Site _____ (0)
- Newspaper (10)
- E-mail/Listserve (25)
- Other (23)
    - USC (4)
    - Direct Mailing (2)
    - DEC (2)
    - Client
    - Binghamton/Johnson City WWTP
    - Their child
    - TV
    - BCSU

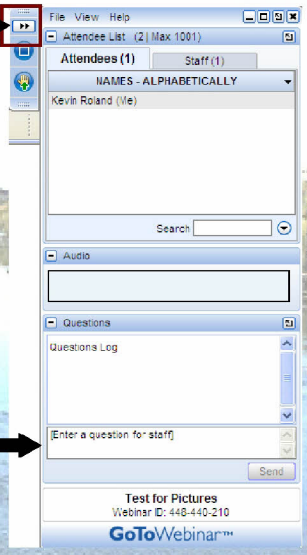


THE CHESAPEAKE BAY TMDL: Restoring Waters of New York and the Chesapeake Bay

Bay TMDL Public Meeting
December 1, 2009
Binghamton, New York

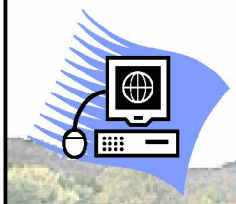
Katherine Antos and Bob Koroncai
U.S. EPA Region III

- Click the double arrow to show or hide your control panel



- Type your questions here.
  (Indicate organization)

Note: Because of the large audience, not all questions will be answered, but they will be saved, and your questions will help drive future events and could contribute to a FAQ.



Technical Issues?

Contact:

- Citrix Global Customer Support

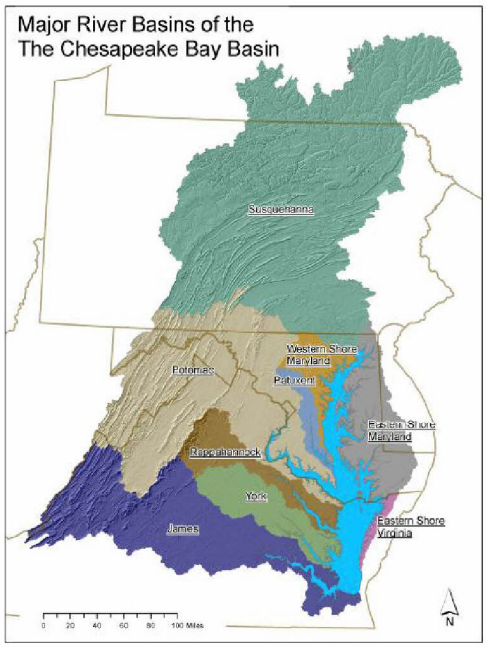
1-800-263-6317

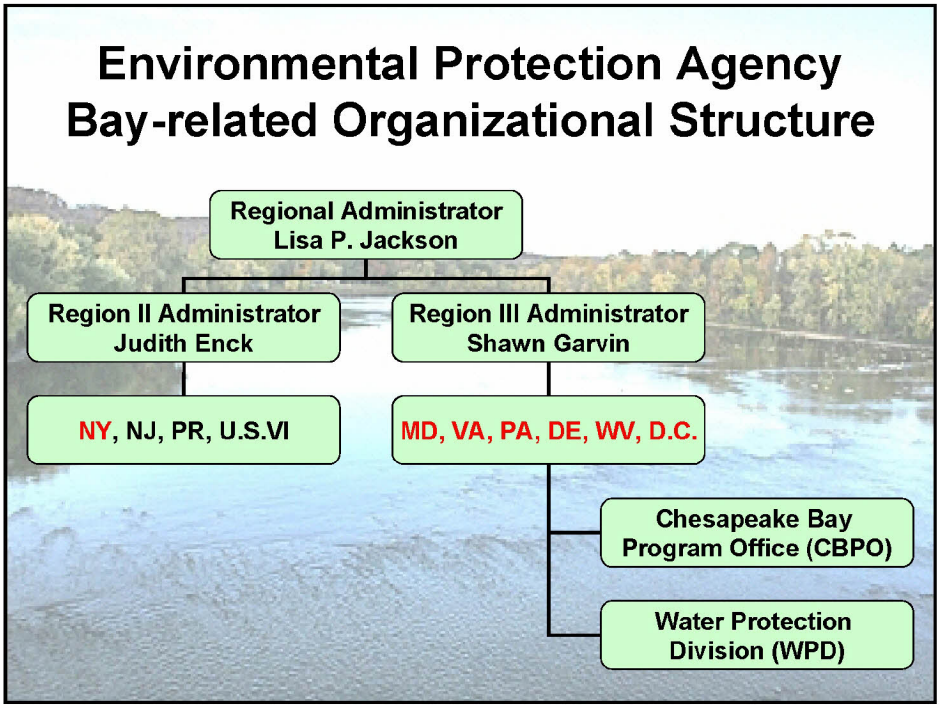
AGENDA

- Welcome, introductions, and meeting logistics – **Peter Freehafer, NYSDEC (5 minutes)**
- EPA presentation on the Chesapeake Bay TMDL and EPA expectations – **Katherine Antos and Bob Koroncai, EPA (45 minutes)**
- Next Steps – **Ron Entringer, NYSDEC (20 minutes)**
- Presentations from Local Government & Watershed Groups –
  - **Carol Sweeney, Town of Owego (10 minutes)**
  - **Jim Curatolo, Upper Susquehanna Coalition (10 minutes)**
- Public comments, questions and answers – **Panel moderated by Peter Freehafer (60 minutes)**
- Adjourn

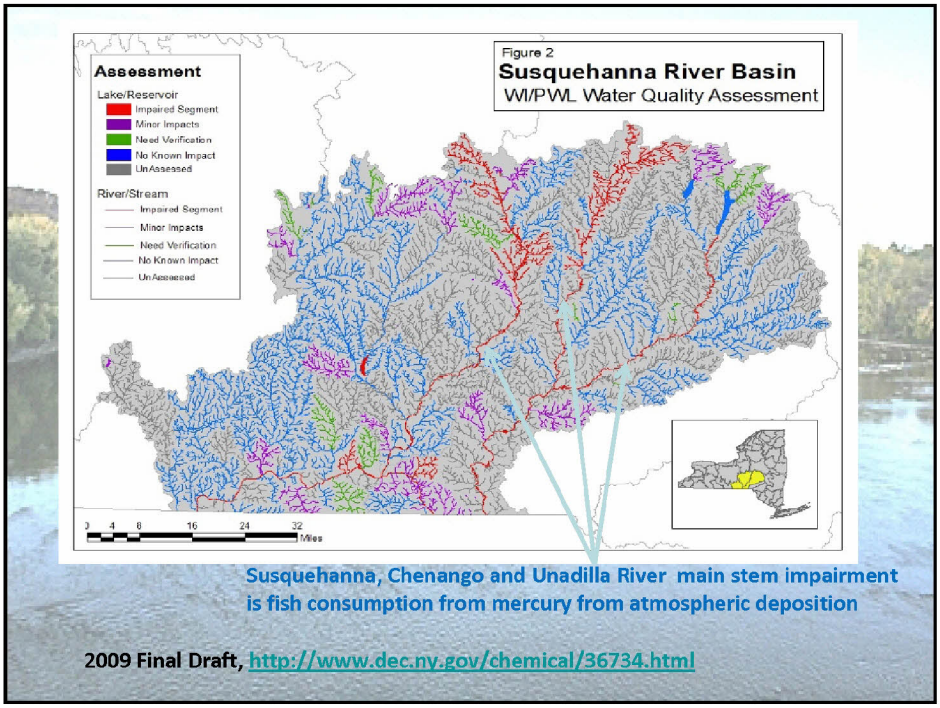
Panel to Address Public Comments

- Moderator: **Peter Freehafer, NYSDEC**
- EPA: **Katherine Antos and Bob Koroncai**
- NYSDEC: **Peter Freehafer and Ron Entringer**
- Town of Owego: **Carol Sweeney**
- Upper Susquehanna Coalition: **Jim Curatolo**
- Madison Co. SWCD: **Steve Lorraine**
- Binghamton-Johnson City WWTP Superintendent: **Catherine Aingworth**



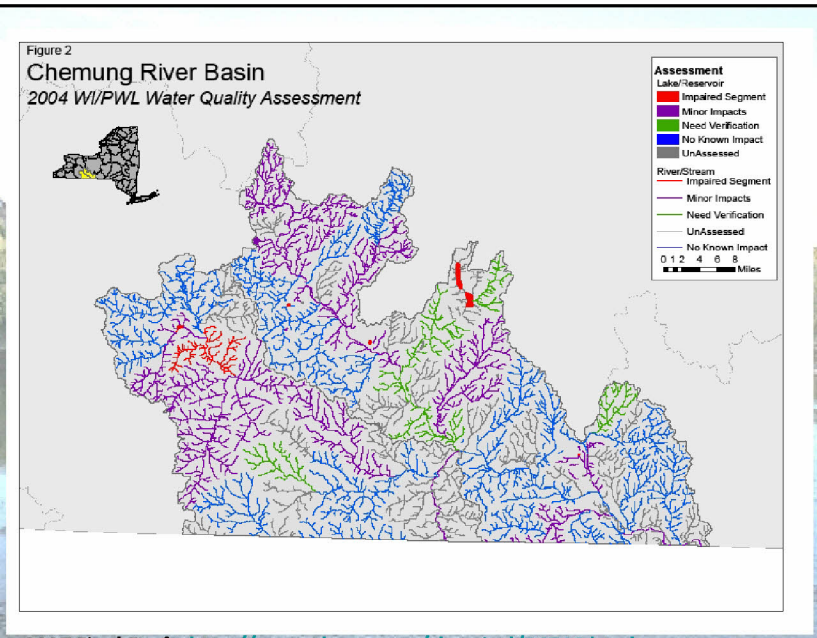

Environmental Protection Agency
Bay-related Organizational Structure
Regional Administrator
Lisa P. Jackson
Region II Administrator
Judith Enck
Region III Administrator
Shawn Garvin
NY, NJ, PR, U.S.VI
MD, VA, PA, DE, WV, D.C.
Chesapeake Bay
Program Office (CBPO)
Water Protection
Division (WPD)


Local Water Quality Issues



Susquehanna, Chenango and Unadilla River main stem impairment is fish consumption from mercury from atmospheric deposition

2009 Final Draft, http://www.dec.ny.gov/chemical/36734.html



2007 Final Draft, http://www.dec.ny.gov/chemical/36746.html

Nutrient Impaired Waters

New York Susquehanna and Chemung River Basins

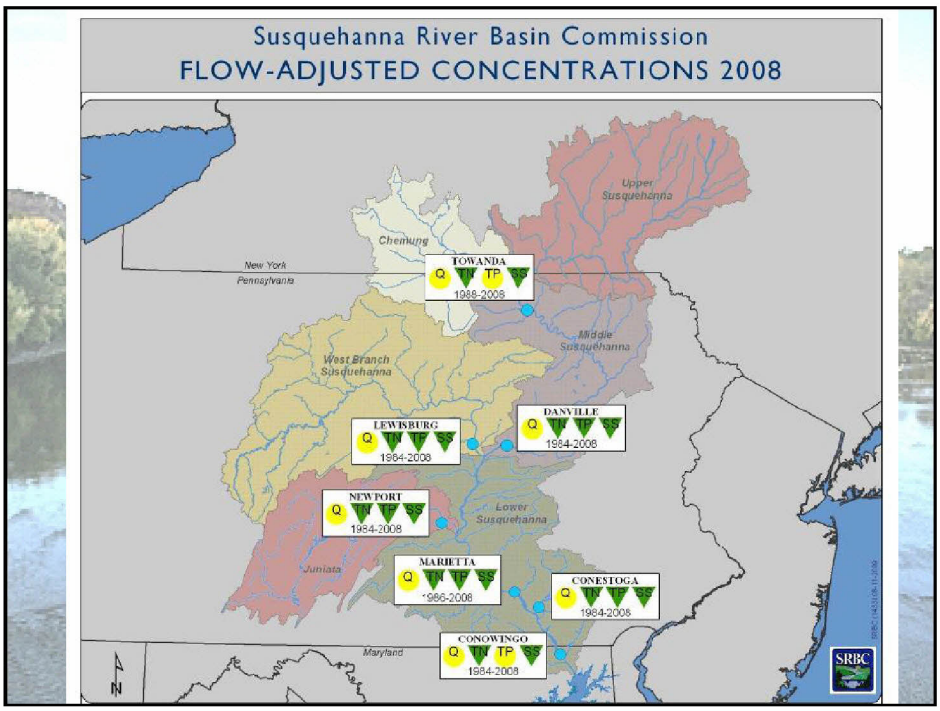
2008 303(d) List, http://www.dec.ny.gov/chemical/31290.html

Waterbody	Size	County	Pollutant	Source	Year
Whitney Point Reservoir	1,200a	Broome	Phosphorus	Agriculture	2002
Beaver Lake	35a	Broome	Phosphorus	On-site Wastewater Treatment System	2002
White Birch Lake	30a	Broome	Phosphorus	On-site WTS	2002
Lake Salubria	60a	Steuben	Phosphorus	On-site WTS	2002
Smith Pond	45a	Steuben	Phosphorus	On-site WTS	2008

Tioga River, Steuben County

Photo credit: Upper Susquehanna Coalition

Oneonta WWTP, June 2006 photo credit: unknown

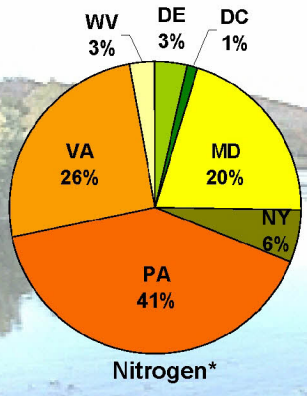


Chesapeake Bay Watershed-
By the Numbers

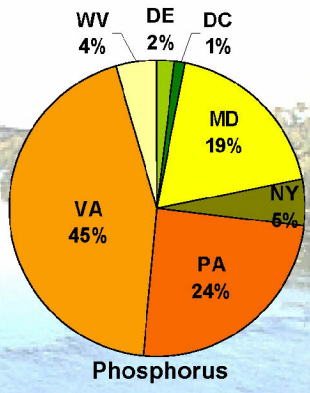
- Largest U.S. estuary
- Six-states and DC, 64,000 square mile watershed
- 10,000 miles of shoreline (longer then entire U.S. west coast)
- Over 3,600 species of plants, fish and other animals
- Average depth: 21 feet
- $750 million contribution annually to local economies
- Home to 17 million people (and counting)
- 77,000 principally family farms
- Declared "national treasure" by President Obama

Source: www.chesapeakebay.net

Nutrient Loads by State



Nitrogen*

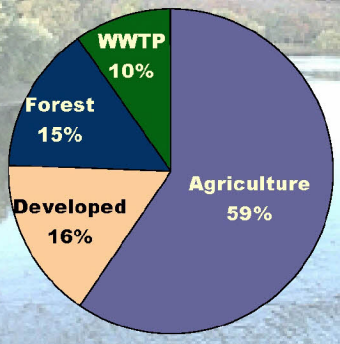


Phosphorus

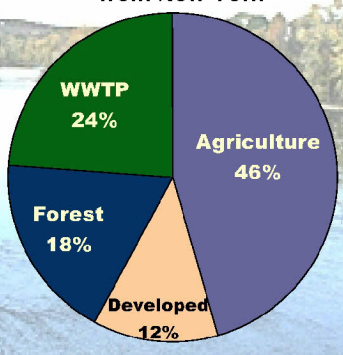
*EPA estimates a nitrogen load of 284 million lbs nitrogen in 2008. EPA assumes a reduction of 7 million lbs due to the Clean Air Act. This leaves 77 millions lbs to be addressed through the TMDL process.

Nutrient Sources of NY

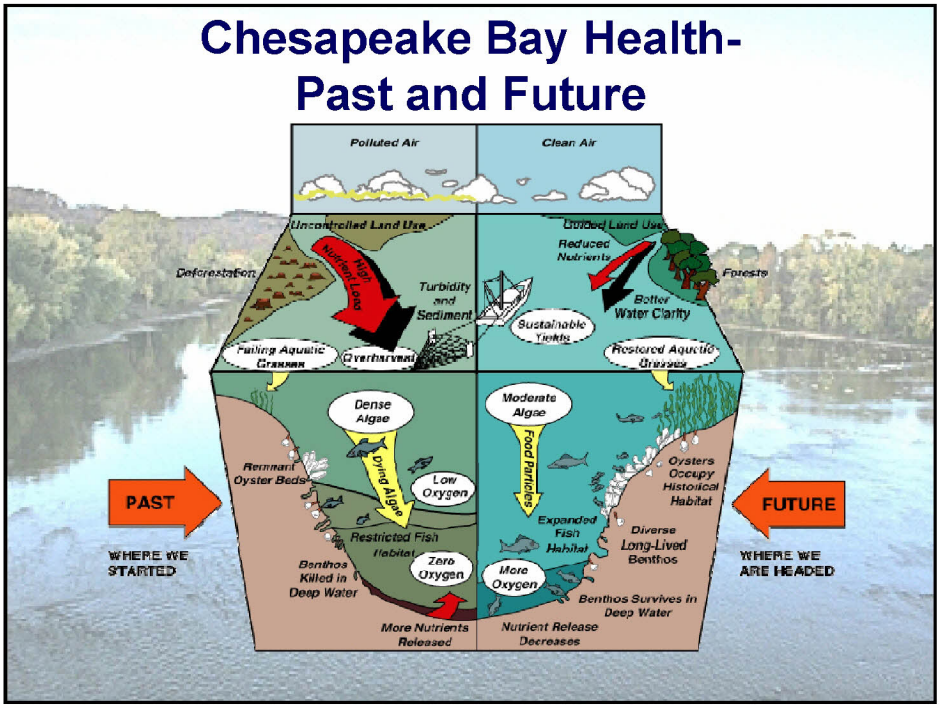
Sources of Nitrogen from New York

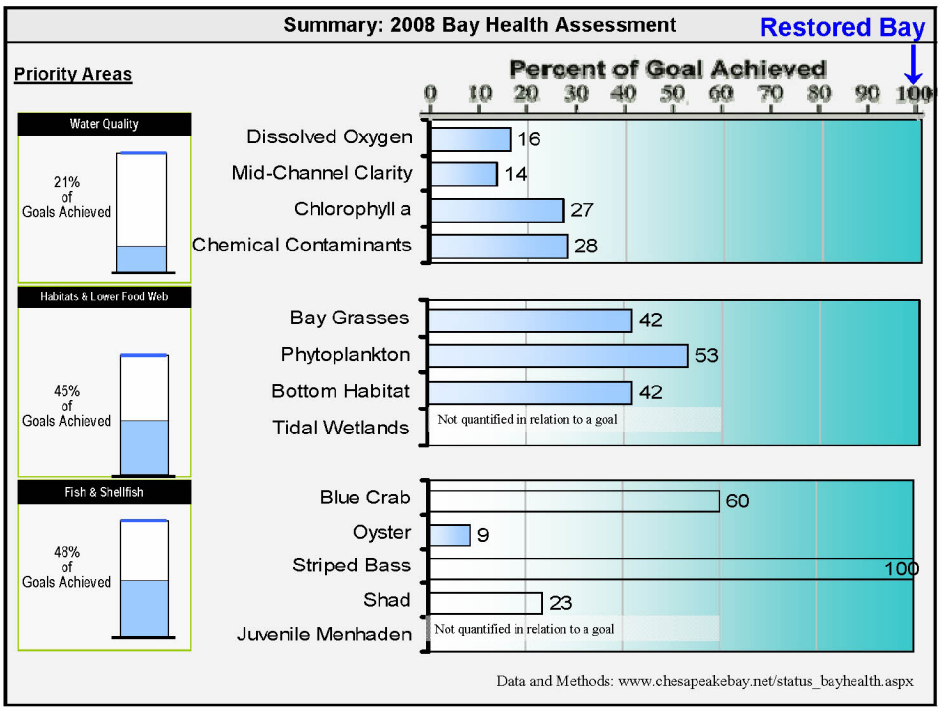


Sources of Phosphorus from New York

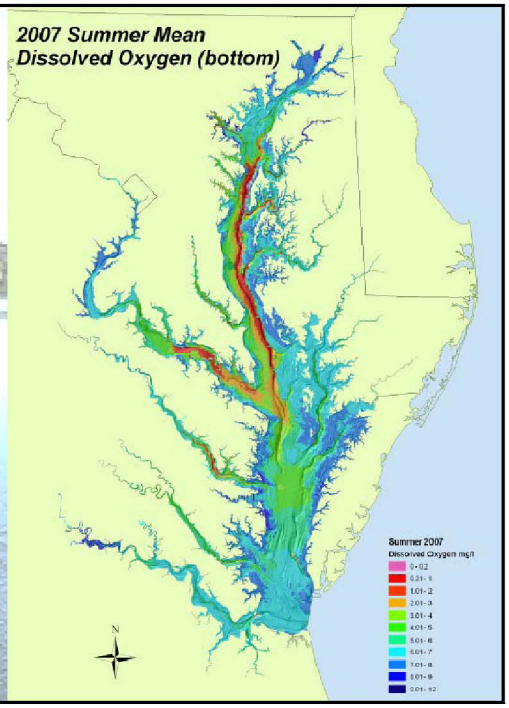


N and P values from 2008 Scenario of Phase 5.2 Watershed Model


Chesapeake Bay Health-
Past and Future
Polluted Air
Clean Air
Uncontrolled Land Use
Controlled Land Use
Deforestation
High Nutrient Load
Turbidity and Sediment
Reduced Nutrients
Forests
Better Water Clarity
Sustainable Yields
Failing Aquatic Grasses
Overharvest
Restored Aquatic Grasses
Dense Algae
Moderate Algae
Remnant Oyster Beds
Dying Algae
Low Oxygen
Food Particles
Oysters Occupy Historical Habitat
PAST
FUTURE
Restricted Fish Habitat
Expanded Fish Habitat
Diverse Long-Lived Benthos
WHERE WE STARTED
WHERE WE ARE HEADED
Zero Oxygen
More Oxygen
Benthos Killed in Deep Water
Benthos Survives in Deep Water
More Nutrients Released
Nutrient Release Decreases


Summary: 2008 Bay Health Assessment
Restored Bay
Priority Areas
Percent of Goal Achieved
0 10 20 30 40 50 60 70 80 90 100
Water Quality
21% of Goals Achieved
Dissolved Oxygen 16
Mid-Channel Clarity 14
Chlorophyll a 27
Chemical Contaminants 28
Habitats & Lower Food Web
45% of Goals Achieved
Bay Grasses 42
Phytoplankton 53
Bottom Habitat 42
Tidal Wetlands
Not quantified in relation to a goal
Fish & Shellfish
48% of Goals Achieved
Blue Crab 60
Oyster 9
Striped Bass 100
Shad 23
Juvenile Menhaden
Not quantified in relation to a goal
Data and Methods: www.chesapeakebay.net/status_bayhealth.aspx

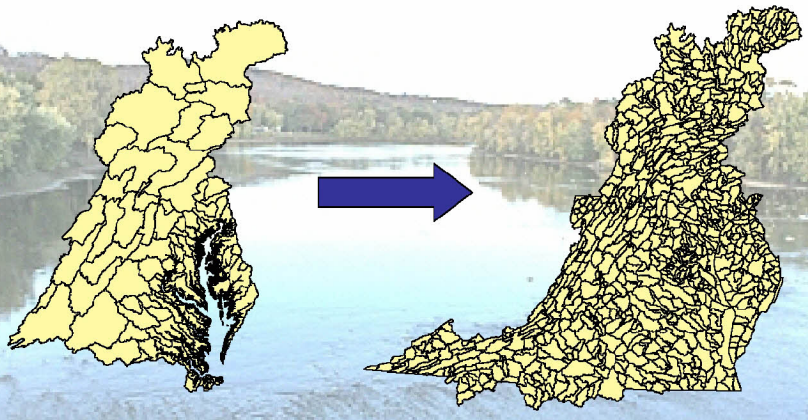
Low to no dissolved oxygen in the Bay every summer



The Chesapeake Bay TMDL

- EPA sets pollution diet to meet states' Bay clean water standards
- Caps on nitrogen, phosphorus and sediment loads for all 6 Bay watershed states and DC
- States set load caps for point and non-point sources

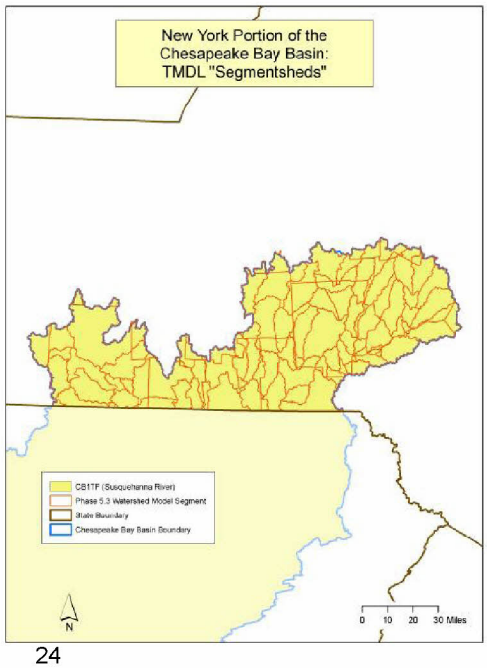
The Bay science supports local pollution diets…



Phase 4 Bay Watershed Model
(2000-2008)

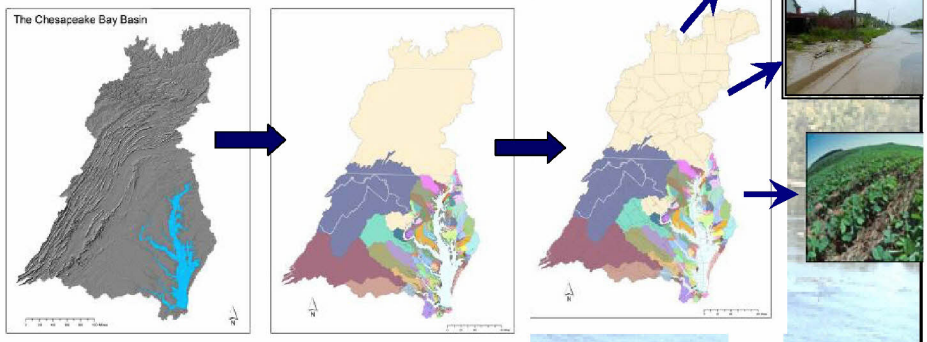
Phase 5 Bay Watershed Model
(2009-)

…with detailed representation of NY's local watersheds



24

Taking Responsibility for Load Reductions



Identify basinwide target loads

EPA, States, DC

Identify major basin by jurisdiction target loads

EPA, States, DC

Identify tidal segment watershed, county and source sector target loads

States, DC, local governments & local partners

What are the Target Pollutant Cap Loads for the Bay Watershed?

Current model estimates are that the states' Bay water quality standards can be met at basinwide loading levels of:

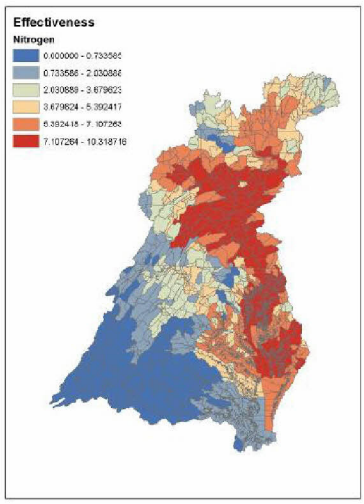
- 200 million pounds nitrogen per year
- 15 million pounds phosphorus per year

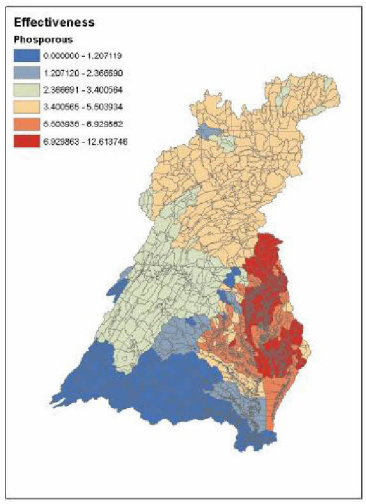
(Sediment target cap load under development-will be available by spring 2010)

Guidelines for Distributing the Basinwide Target Loads

- Water quality and living resource goals should be achieved.
- Waters that contribute the most to the problem should achieve the most reductions (on a per pound basis).
- All previous reductions in nutrient loads are credited toward achieving final cap loads.

Nutrient Impacts on Bay WQ





Current State Target Loads

Nitrogen

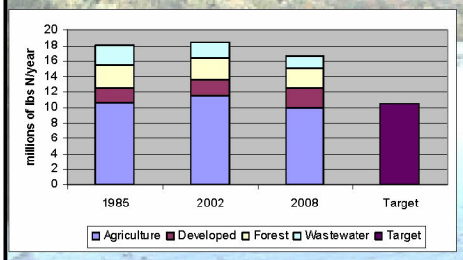
State	Target Load
DC	2.37
DE	5.25
MD	41.04
NY	10.54
PA	73.64
VA	59.22
WV	5.71
Total	197.76

Phosphorus

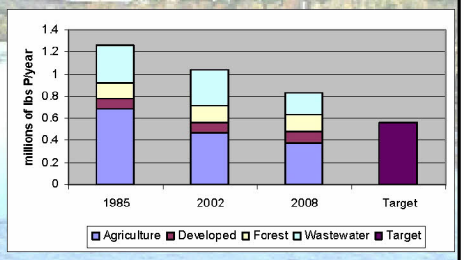
All loads are in millions of pounds per year.

New York's Past, Present and Future Estimated Loads

Nitrogen



Phosphorus

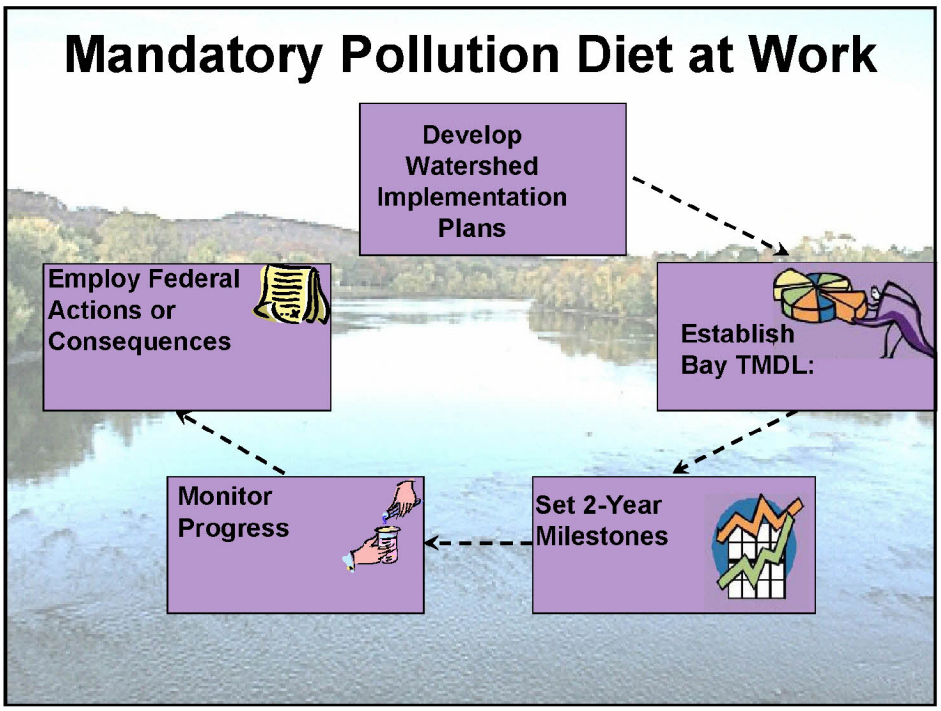


All scenarios run through Phase 5.2 Watershed Model

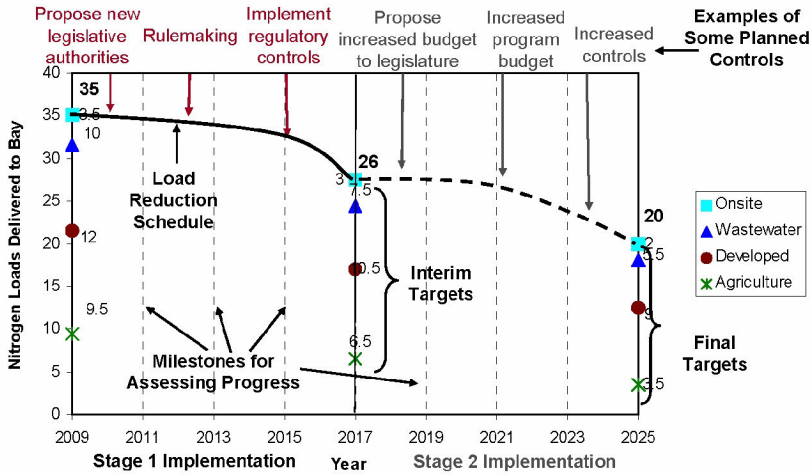
Target Load Refinements

- If States' Bay Water Quality Standards can still be achieved…
  - The State may exchange nitrogen and phosphorus target loads within a basin; and/or
  - The State may exchange nitrogen and phosphorus loads from one basin to another within the State.


The Chesapeake Bay
Performance and Accountability
System


Mandatory Pollution Diet at Work
Develop Watershed Implementation Plans
Establish Bay TMDL:
Set 2-Year Milestones
Monitor Progress
Employ Federal Actions or Consequences

Example: Watershed Implementation Plan Elements



- Also divide jurisdiction load by 303(d) segment drainage area and, by November 2011, local area
- Attain jurisdiction-wide load reductions by the interim target, or justify why can still meet final target
- Jurisdiction would determine desired 2-year schedule to meet interim and final target loads
- EPA first evaluates milestones based on consistency with jurisdiction target load. EPA accepts shifts among source sectors, basins, segment drainages, and local areas if jurisdiction target load is met and local and Bay water quality goals are achieved

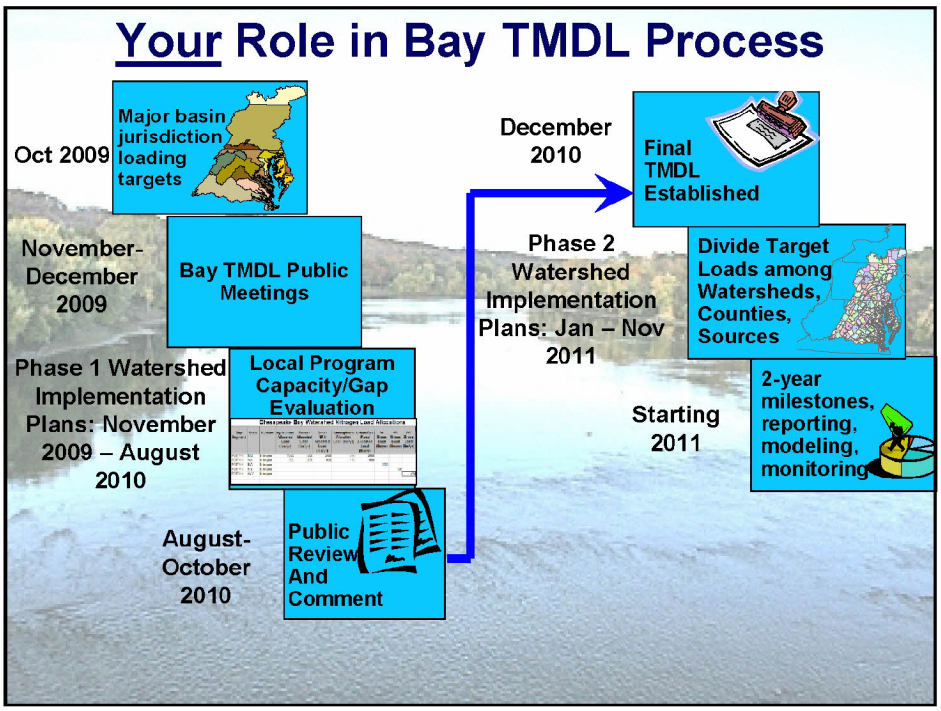
Federal Consequences

- Directed at states not achieving expectations
- Will be outlined in an EPA letter this fall. May include:
  - Assigning more stringent pollution reductions to regulated point sources (e.g., wastewater, stormwater, CAFOs)
  - Objecting to state-issued NPDES permits
  - Limiting or prohibiting new or expanded discharges (e.g., wastewater, stormwater) of nutrients and sediment
  - Withholding, conditioning or reallocating federal grant funds

Bay TMDL- Presidential Executive Order Connections

- Create Federal Leadership Committee
- Create the Performance and Accountability Framework
- Expand regulatory tools for CAFO's and urban and suburban runoff
- Improve nutrient and sediment controls on federal lands and roads

Your Role in Bay TMDL Process



Bay TMDL: Bottom-line

- Actions will clean and protect local waters in NY thereby supporting the local economy
- Restore a thriving Chesapeake Bay
- Federal, state, local officials and agencies will be fully accountable to the public
- Consequences for inaction, lack of progress



Further Information

- Chesapeake Bay TMDL web site
  www.epa.gov/chesapeakebaytmdl
- U.S. EPA Region 3 Contacts
  - Water Protection Division
    - Bob Koroncai
      - 215-814-5730; koroncai.robert@epa.gov
    - Jennifer Sincock (sincock.jennifer@epa.gov)
  - Chesapeake Bay Program Office
    - Rich Batiuk
      - 410-267-5731; batiuk.richard@epa.gov
    - Katherine Antos (antos.katherine@epa.gov)

New York Next Steps and Watershed Implementation Plans

Susquehanna and

Chemung River Basins

Overview

- NYDEC is committed to protect and conserve water resources in New York
  - 2000 Chesapeake Bay Cooperative Effort MOU
- Susquehanna /Chemung River Basins
  - Few Impaired waters
  - NYSDEC Water Body Inventory/Priority Water Body List
  - Flooding

2007 Tributary Strategy

- Completed in 2006, adopted in 2007
  - http://www.dec.ny.gov/lands/33279.html
- Partnership with Upper Susquehanna Coalition
- Substantial Public Input
- Sources
  - Major: Wastewater, Agriculture, Atmospheric Deposition
  - Other: Septic, Urban Runoff

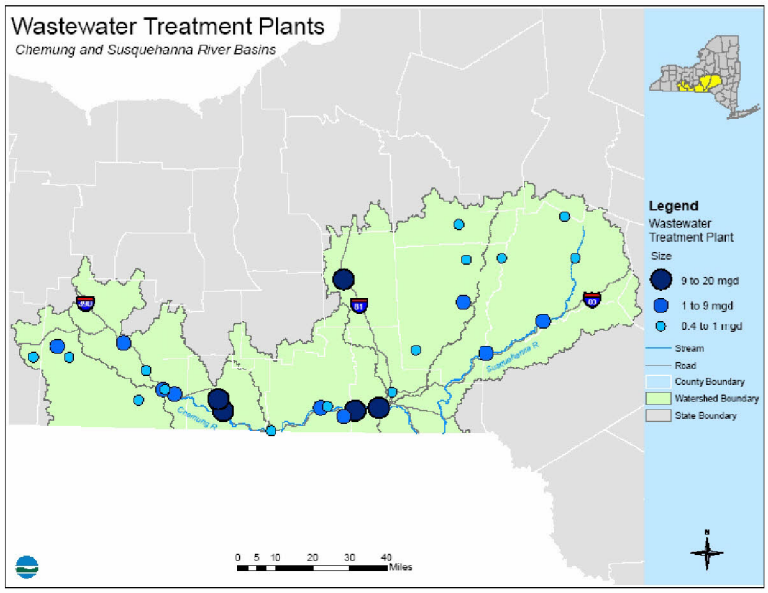
2007 Tributary Strategy

- Realistic /Practical Implementation Levels
- No commitment of time, money and staff to fully implement
- Opportunity for Water Quality/Natural Resource Protection

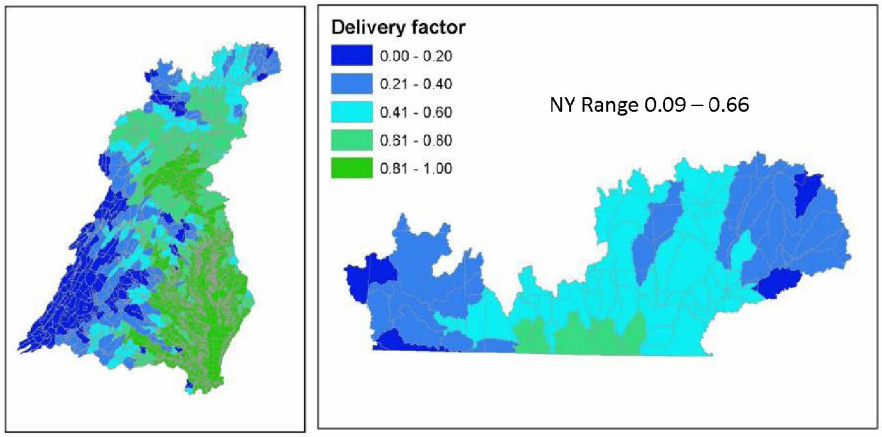
Tributary Strategy Goals

Wastewater (4 Steps)

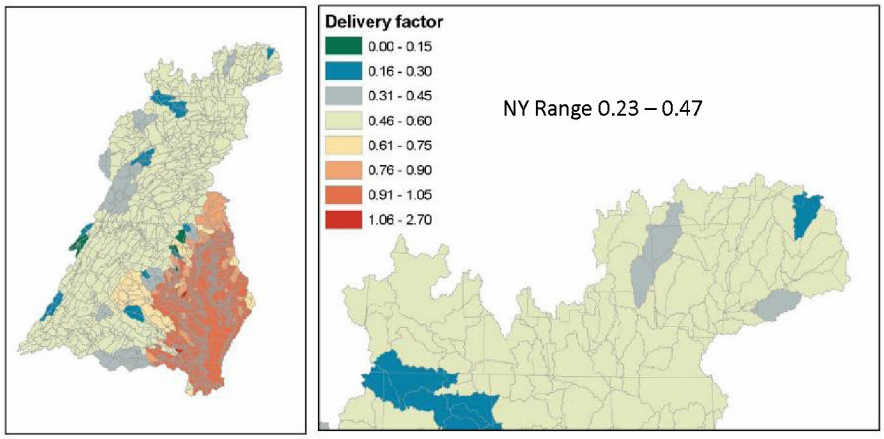
1. Add Monitoring (Done 2005)
2. Add Compliance Schedule for Nutrient Removal Optimization (Ongoing, began 2008)
3. Identify Priority for Potential Capital Upgrades
   - BJC Project completed ($70 million)
   - Others: +$200 million (2005 estimate)
4. Develop Waste load Allocations if TMDL



New York TN Delivery Factor



New York TP Delivery Factor



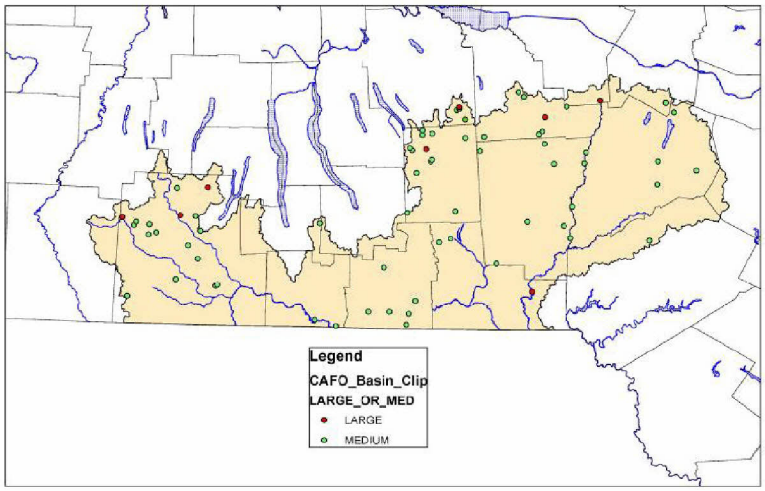
Tributary Strategy Goals

- Agriculture (+$250 million 2005 estimate)
  - Concentrated Animal Feeding Operations (CAFO) General permit compliance
    - All farms with over 200 mature animals
    - > 30% of dairy herd in watershed
    - 10 % of cropland w/ Nutrient Management
  - Realistic set of BMPs for voluntary and incentive-based implementation
    - USDA-NRCS cost share programs
    - NY Agriculture Environmental Management Program
  - Upper Susquehanna Coalition Implementation Plan

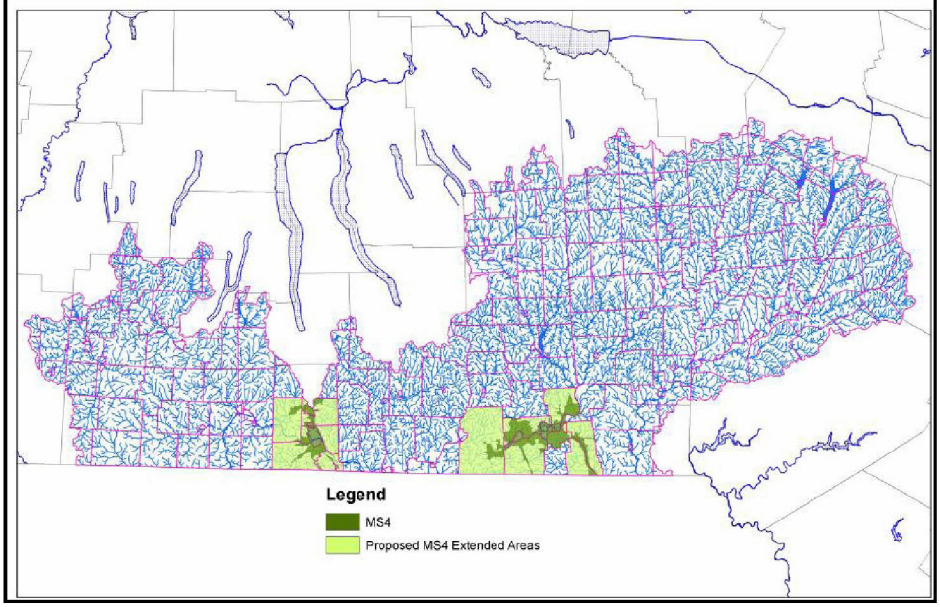
Concentrated Animal Feeding Operations

CAFOs regulated under a general permit

preliminary locations, pending further review



Municipal Separate Sewer Systems
MS4s regulated under a general permit



Tributary Strategy Goals

- Stormwater
  - MS4, Construction, Industrial permit compliance
- Atmospheric Deposition
  - Heightened regulation in NY
- Septics
  - Correct failure "hot-spots"
  - Regular maintenance

Other Initiatives

- Source Controls
  - Phosphate bans: lawn fertilizer/ dishwasher detergent
- New Projects
  - ARRA Green Infrastructure
    - $740k Forest wetland construction
    - $240k Wastewater wetland use
    - $800k Green Roof
    - $120K Wastewater reed bed
  - ARRA Watershed Planning
    - $285K Susquehanna/Chemung River Basin Ecosystem-Based Action Plan – Regional Planning Boards

What this TMDL May Mean to NY

- NYDEC expects EPA to establish a TMDL for Chesapeake Bay that includes important "fairness" caveats:
  1. Equal opportunity for growth in NY
  2. Equal time for implementation in NY
  3. Equal commitments from federal government to regulate sources and support implementation in NY

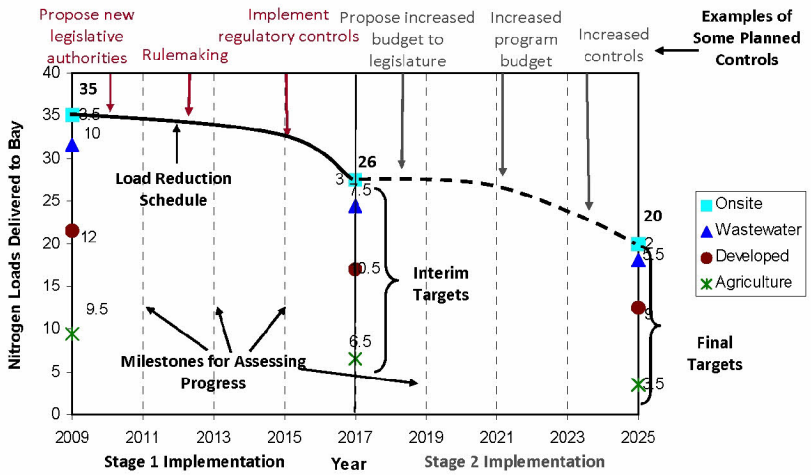
2003 Allocation Principles

1. Tributary basins with the highest impact on Bay water quality would have the highest reductions of nutrients
2. States without tidal waters would be provided some relief from Principle 1 since they do not benefit as directly from improved water quality in the Bay and its tidal tributaries
3. Previous nutrient reductions would be credited towards achievement of the cap load allocations

Next Steps

- Revise Tributary Strategy
  - Public Input
    - Wastewater treatment permittees
    - Agriculture (USC)
    - Other/Economic Development (Action Agenda)
  - Cost Effectiveness/ Local benefits
  - Capacity/Affordability
  - 2-yr Milestones
  - Deadline for Full Implementation
  - EPA Consequences

Example: Projected Nitrogen Delivery from Major Basin in Each Jurisdiction by Source Sector



Schedule

- TMDL Development
  - 2/2010 Final model
  - **5/2010 State Allocations**
  - 7/2010 EPA Plan Review
  - 8/2010 Draft TMDL
  - 10/2010 Public Comment
  - 12/2010 Final TMDL
- State Watershed Plan
  - **6/2010 Initial Plan**
  - 8/2010 Draft Plan
  - 11/2010 Final Plan

NYSDEC Contact Information

- Ron Entringer, Water Quality Section Chief, NYSDEC Division of Water - Bureau of Water Assessment and Management, raentrin@gw.dec.state.ny.us (518) 402-8176
- Peter Freehafer, Chesapeake and Delaware Basin Program Coordinator, NYSDEC Division of Water - Bureau of Water Resource Management, pbfreeha@gw.dec.state.ny.us (518) 402-8205

Challenges of Nutrient Reduction in the Upper Susquehanna River Basin

Carol B. Sweeney
Town of Owego Supervisor
Owego, NY

Town and Village of Owego

Town of Owego

- 20,365 population (lower than in 1990)
  - Village population – 3,911
  - Town (outside Village) – 16,454
- Mix of Village, subdivisions and rural
- 2800 Sewer Customers in the Town
- Many of the sewer lines in the Town are 40-50 years old and in need of repair/replacement
  - IBM came to Town in 1957
- Flooding is on everyone's mind
  - Properties along the river have no extra value
  - Minimal recreational use of the river

Sewage Treatment Facilities

- Owego Sewage Treatment Plant (WPCP#1)
  - .848 mgd
  - $4M upgrade (new plant) in 1999
    - Went from Trickling Filter to Activated Sludge
  - Serves our two largest employers
    - Sanmina – 800 employees
    - Lockheed Martin – 3,000 employees
- Apalachin Sewage Treatment Plant (WPCP#2)
  - 2 mgd (built in 1971)
  - Mainly residential customers
  - $600,000 Aeration basin & equipment upgrades - 2002/2003
  - $1.9 M capital project – 2007/2008
  - Much equipment (motors/boilers etc.) was replaced after 2006 flood
- 2010 Sewer Budget - $1.73M

History of Flooding

- Four FEMA events within 26 months
  - September 2004 (Ivan)
  - April 2005
  - June 2006
  - November 2006
- Apalachin WPCP sustained $725,000 damage.

Apalachin WPCP June 2006

Challenges of Nutrient Removal

- No State/Federal grant money currently available for Sewer Capital Projects
- High Property Taxes leave most of our residents feeling that they cannot handle any more fees/increases in rates
  - Our Seniors are especially vulnerable
- Don't want to drive out industry (jobs) with higher sewer rates
- Have gone through two major capital upgrades at our plants that our residents and industries will be paying off for the next 30+ years in capital charges
- Infrastructure is aging – inflow/infiltration

Stearns & Wheler 2005 Nutrient Removal Assessment for Apalachin WPCP#2

- Study examined cost for goal of annual average effluent total nitrogen concentration of 5.0 mg/L and total phosphorus of 0.5 mg/L
- Costs are in 2005 dollars
- Capital Costs
  - Nitrogen Removal - $8,372,000
  - Phosphorus Removal - $1,560,000

  TOTAL CAPITAL COSTS - $9,932,000
- Operation and Maintenance Costs
  - Nitrogen Removal - $236,300
  - Phosphorus Removal - $121,000

  TOTAL O & M COSTS - $357,300

Hunt 2009 Nutrient Removal Assessment for Owego WPCP#1

- Study examined cost for goal of annual average effluent total nitrogen concentration of 5.0 mg/L and total phosphorus of 0.5 mg/L
- Costs are in projected 2010 dollars
- Capital Costs
  - Nitrogen Removal - $4,173,000
  - Phosphorus Removal - $780,000

  TOTAL CAPITAL COSTS - $4,953,000
- Operation and Maintenance Costs
  - Nitrogen Removal - $80,000
  - Phosphorus Removal - $65,000

  TOTAL O & M COSTS - $145,000

Additional Operation and Maintenance and Capital Costs

Total Additional O & M Costs -$502,300 per year

Total Additional Capital Costs - $14,885,000

- These additional O&M costs would raise our sewer rates by approximately **68%.**
- The additional yearly bond payment cost ($825,000) for the $15M capital improvement would raise our sewer capital charge by **125%**.
- These estimates are low based on the fact that the projected costs for WPCP#2 are in 2005 construction dollars.

2010 Challenges

- Paying for the additional $203,000 of operational costs to reach effluent goals of total nitrogen concentration of 12.0 mg/L and total phosphorus of 2 mg/L **rolling averages** at our two plants. The additional $203,000 is approximately 12% of the total 2010 sewer budget.
- Asking and supporting NYS extending the phosphorus ban on household cleaning products to include automatic dishwasher detergents.
- Asking for Federal Funds for any major capital upgrades that are required for reaching these goals and also for additional operation and maintenance costs.

Questions?

Carol B. Sweeney
Town of Owego Supervisor
2354 State Route 434
Apalachin, NY 13732
(607) 687-0123 Option 7
csweeney@townofowego.com


Questions & Comments


Thank you for your participation.
THANK YOU
That concludes today's meeting.

Questions Answered

Questions Answered (in the order in which they were asked):

***The letter indicates the source of each question. An "A" indicates that the question was submitted by the live audience, and the "W" indicates that the question was submitted through the webinar. The cards were pre-numbered to easily identify the question once they were submitted. These questions are in the order that they were asked.**

A1. How, or will, the EPA TMDL impact local municipalities, that do not have a high population density but are now discharging into a TMDL waterway, in terms of state MS4 designation? Will future models account for stream bank erosion for contributions of phosphorus? (Scott Fickbohm, Otsego County Soil and Water Conservation District)

A2. How does the Chesapeake Bay Strategy mesh with the overall goal of the reduction of carbon footprints and greenhouse gases? Specifically, has consideration been given to the amount of energy needed to get nutrient reductions? The production of methanol for denitrification is an extremely energy consuming process.

A3. The data presented suggests New York state Wastewater Treatment Plants contribute 0.6% nitrogen and 1.25% phosphorus load to the Bay. What is the logic of requiring upgrades in local WWTPs since the benefit will be trivial (but the cost is not trivial)? Why not concentrate on more cost effective (to the consumer) reductions? (Ron Kahn, Waverly, NY)

A4. How will DEC equitably allocate TMDL allowances so as not to create economic disincentives that stymie a county's economic development efforts vis-à-vis other counties in the Bay Watershed (both in New York State and in Pennsylvania) as well as New York counties outside of the Bay Watershed (for example in the Great Lakes Watershed)?

W1. As most people are more concerned about what happens in their backyards (local rivers and streams) how do we convince them that this TMDL project and costs, will benefit them?

A5. The city of Hornell has received no federal aid since our last update in 1985. If the Chesapeake Bay is a national treasure, shouldn't the federal government be involved in funding upgrades to wastewater facilities? How will small cities with declining populations and financial resources pay for WWTP upgrades with no federal assistance?

A6. Will the EPA's TMDL process include provisions to sanction a watershed-wide nutrient reduction credit trading program/system to help incentivize and financially reward communities and enterprises that aggressively accomplish more than the minimum nutrient reductions?

A7. We got 12-month RA action levels of 2.0mg/l phosphorus and 15 mg/l nitrogen in our permit modification which went into effect October 2009. We are a 9 MGD nominal, 5 MGD average plant. Will we see these numbers tighten in 2011? Will there be a mechanism to inform permit holders throughout

the process so we can get a good idea of what's coming well in advance? (Bruce Adams, Cortland Wastewater Treatment Plant)

A8. The Susquehanook tribe named the Susquehanna River, which means people of the muddy river. Can the TMDL process really change eight centuries of natural geology?

A9. How do you recommend the TMDL requirements be addressed in the DEC GEIS for shale gas drilling now under public review?

A10. Tell me about the consequences at the farm level. (Troy Bishopp, Farmer in 24th Congress District SWCD Employee in Madison County)

A11. How is the DEC going to establish a reserve for future new wastewater plants (for example, Windsor) and/or new wastewater plants supporting the Marcellus shale drilling industry (for example, American Water in Owego)? What about the huge amounts of aerial nitrogen deposition from well drilling operations (900-1300 truck trips per well plus generators, compressors, drilling rig engines)?

A12. Given the current modeling prediction, much higher than the TMDL cap (80% more), what are the specific strategies the EPA and state will do? And what kind of support can New York expect from the EPA and downstream states? (Dr. Weixing Zhu, Professor of Binghamton University, STAC member, New York State resident for ten years)

A13. What is the resource commitment expected from New York state and local counties in the next 10-15 years? (Dr. Weixing Zhu, Professor of Binghamton University, STAC member, New York State resident for ten years)

A14. What are the potential impacts of Marcellus shale drilling on this TMDL regulation? Would that affect the drilling permits? (Dr. Weixing Zhu, Professor of Binghamton University, STAC member, New York State resident for ten years)

A16. What percentage of original numbers of phosphorus, nitrogen and sediment are we trying to reach?

A17. Does the sediment model take into account total dissolved solids loadings?

A18. Has consideration been given to the impacts of thermal pollution and nutrients interaction on the Bay?

A19. How are the DEC MS4 rules going to impact our DOT areas of significant road runoff that go straight to streams or rivers without holding capacity? (Peter Andreason, Vestal Supervisor)

A20. How are DEC and Army Corps of Engineers going to work with us long term, longer than current permit processes for helping to clean and maintain our major streams and the Susquehanna River? Specifically for sediment problems? (Peter Andreason, Vestal Supervisor)

Questions Submitted

Questions Submitted (but not answered):

W2. In "new data expected", are you preparing for the additional pollutants from Marcellus drilling activity? The gas/oil industry has been exempted from the Clean Water and Clean Air Acts, but will certainly contribute TDS and god only knows what else. Will agriculture be pressed to meet the executive order, but the gas and oil industry still be exempt? How will these two very conflicting federal directives be met?

W3. Why will hydrofracking not been discussed? Gas drilling will have a profound effect on all regulations and the estimates being talked about.

W4. What WWTPs will be equipped to handle produced water from hydrofracking?

W5. Will the contamination of air, soil and water from gas drilling (hydrofracking) be covered today?

A21. I certainly understand the need to decrease the amount of nitrogen and phosphorus pollution in our water. However, what good will this do in the Chesapeake Bay if New York state water is rich in 260 plus toxic chemicals from gas drilling that inexplicably flow into the streams and rivers? What monitoring of New York state will be for toxics as well as Pennsylvania water? Other states that the EPA had begun funding through grants show increases in carcinogenic and hormone disruptive diseases.

A22. Governor Patterson issued an Executive Order earlier this year that essentially forbids state agencies from imposing unfunded mandates on communities. Doe the DEC have a commitment from Governor Patterson, the New York State Senate and New York State Assembly to provide adequate state funding dedicated solely for Chesapeake Bay nonpoint source and point source nutrient removal infrastructure?

A23. What is the EPA's sense of the willingness of Congress and the President to commit adequate federal funding dedicated solely for Chesapeake Bay nonpoint source and point source nutrient removal infrastructure?

A24. Does the TMDL analysis take into account the carbon footprint/greenhouse gas effect of improvement efforts? For example:

a. Chlorophyll a is 39 molecules of carbon to 4 molecules of nitrogen (don't we have to limit CBOD, too?).
b. The Binghamton-Johnson City Wastewater Plant is installing (it doesn't work reliably yet) a denitrification process that uses methanol as a carbon source and huge amounts of electricity. Is EPA studying the greenhouse gas emissions in manufacturing and transporting methanol as well as increased electric consumption to drive treatment processes?

A25. Can we have one Marcellus shale drilling question?

A26. Explain and identify what are unregulated point sources as opposed to regulated?

A27. When will the targeted TMDL be executed?

W6. Any comments on the impact of Marcellus shale drilling will be appreciated. As Jim said, that is the 800 pound gorilla in the room.

A28. How do you address the winter manure spreading issue? It does snow in New York!

A29. How do you implement a 15 year plan that took over 100 years to create? (Troy Bishopp, Farmer in 24th Congress District SWCD Employee in Madison County)

A30. How do you put conservation and water quality in place on farms without trained technical people? (Troy Bishopp, Farmer in 24th Congress District SWCD Employee in Madison County)

A31. Is the cheap food system and people's behavior really to blame for this situation? How do you regulate this? (Troy Bishopp, Farmer in 24th Congress District SWCD Employee in Madison County)

A32. How will any of these TMDL requisites apply the consequences to hydrofracture drilling which is not under the jurisdiction of local or federal laws and the Clean Air and Water Act? (K. Eaton)

Comments

There were no public comments at the Binghamton, New York meeting.